

What is claimed is:

1. An image forming method comprising:

exposing to a radiation source a photothermographic material comprising, on a same surface of a support, a photosensitive silver halide having a silver iodide content of 40 to 100 mol%, a non-photosensitive organic silver salt, a reducing agent and a binder; and

thermally developing the photothermographic material with a developing time of 1 to 12 seconds.

2. The image forming method according to claim 1, wherein the developing time is 2 to 10 seconds.

3. The image forming method according to claim 1, wherein the thermal development is conducted at a temperature of 80 to 250 °C.

4. The image forming method according to claim 1, wherein the thermal development is conducted at a temperature of 100 to 140 °C.

5. The image forming method according to claim 1, wherein the photothermographic material further includes an antifogging agent.

6. The image forming method according to claim 1, wherein the photosensitive silver halide has an average grain size of 5 to 50 nm.

7. The image forming method according to claim 1, wherein the photothermographic material further includes a development accelerator.

8. The image forming method according to claim 1, wherein the photothermographic material further includes a compound represented by the following formula (H):



wherein in formula (H), Q represents an alkyl group, an aryl group or a heterocyclic group; Y represents a divalent connecting group; n represents 0 or 1; Z₁ and Z₂ each independently represent a halogen atom; and X represents a hydrogen atom or an electron attracting group.

9. The image forming method according to claim 1, wherein the photothermographic material further includes a toning agent.

10. The image forming method according to claim 1, wherein the photothermographic material further includes a ultra-high contrast agent.

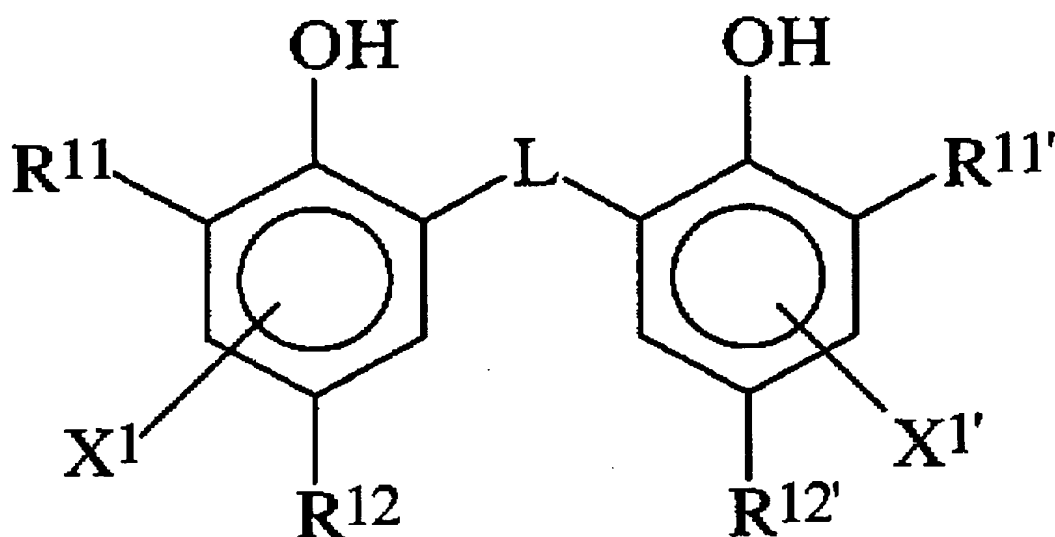
11. The image forming method according to claim 1, wherein the photothermographic material further includes a matting agent.

12. The image forming method according to claim 1, wherein the radiation source was a laser.

13. The image forming method according to claim 1, wherein the laser has a light emission peak intensity within a wavelength range of 350 to 450 nm.

14. The image forming method according to claim 1, wherein the reducing agent is a compound represented by the following formula (R-1):

Formula (R-1)



wherein in formula (R-1), R^{11} and $R^{11'}$ each independently represent an alkyl group having 1 to 20 carbon atoms; R^{12} and $R^{12'}$ each independently represent an alkyl group having 2 to 20 carbon atoms; L represents a -S- group or a $-CHR^{13}-$ group; R^{13} represents a hydrogen atom or an alkyl group having 1 to 20 carbon atoms; X^1 and $X^{1'}$ each

independently represent a hydrogen atom or a group that can substitute a benzene ring.

15. A photothermographic material comprising, on a same surface of a support, a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent and a binder, wherein the photosensitive silver halide has a silver iodide content of 40 to 100 mol%, and the material is thermally developed within a developing time of 1 to 12 seconds.

16. The photothermographic material according to claim 15, wherein the photosensitive silver halide has an average grain size of 5 to 50 nm.

17. The photothermographic material according to claim 15, further comprising a development accelerator.

18. The photothermographic material according to claim 15, further comprising a antifogging agent.

19. The photothermographic material according to claim 15, further comprising a compound represented by the following formula (H):

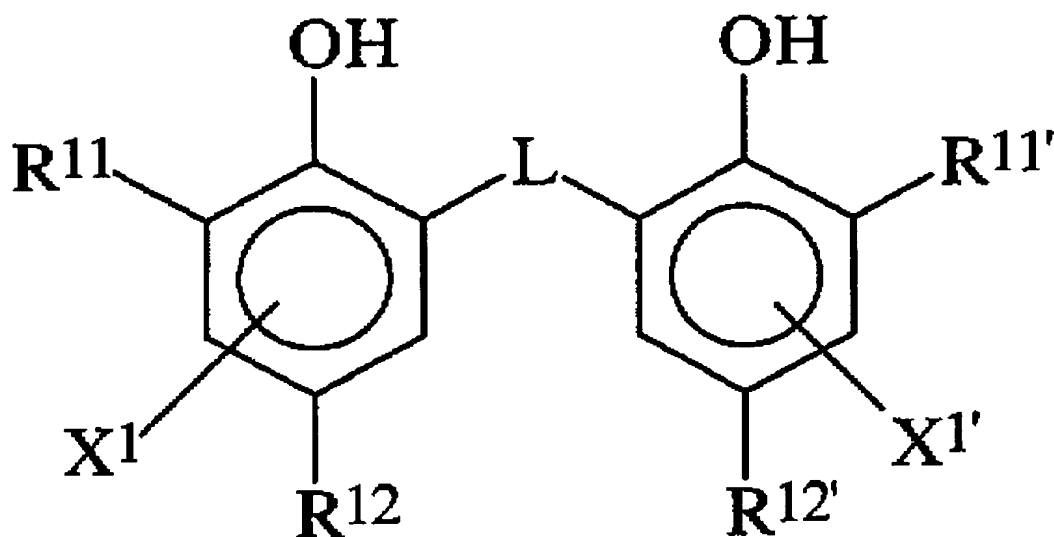


wherein in formula (H), Q represents an alkyl group, an aryl group or a

heterocyclic group; Y represents a divalent connecting group; n represents 0 or 1; Z₁ and Z₂ each independently represent a halogen atom; and X represents a hydrogen atom or an electron attracting group.

20. The photothermographic material according to claim 15, wherein the reducing agent is a compound represented by the following formula (R-1):

Formula (R-1)



wherein in formula (R-1), R¹¹ and R^{11'} each independently represent an alkyl group having 1 to 20 carbon atoms; R¹² and R^{12'} each independently represent an alkyl group having 2 to 20 carbon atoms; L represents a -S- group or a -CHR¹³- group; R¹³ represents a hydrogen atom or an alkyl group having 1 to 20 carbon atoms; X¹ and X^{1'} each

independently represent a hydrogen atom or a group that can substitute a benzene ring.